## **AMENDMENTS TO THE CLAIMS**

Without prejudice, please amend the claims as reflected in the following listing of claims, which will replace all prior versions, and listings, of claims in the application:

Apparatus to heat for heating a bitumen (Currently Amended) 1. froth by steam comprising: a source of steam: ii. an inline a heater body comprising a bitumen froth inlet for receiving bitumen froth, a steam inlet in communication with the source of for receiving steam, and a mixture outlet all in common communication with each other; iii. — a baffle disposed across the mixture outlet; and iv. an elongate a static mixer body having first and second spaced ends and forming a passageway therethroughextending between the first and second ends, wherein the first one end of the passageway-is in communication with the mixture outlet, the static mixer body supporting a plurality of baffles disposed to effect a mixing action of material flowing through the passageway thereof;

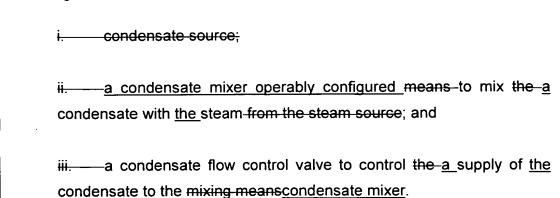
2. (Original) The apparatus of claim 1 wherein the baffles are disposed within the static mixer body to impart a lateral, radial, tangential or circumferential directional component to a material flow through said static

body.

wherein the apparatus is operably configured to direct substantially all of the bitumen froth and steam out the second end of the static mixer

mixer passageway that changes repeatedly along the length of the passageway.

- 3. **(Currently Amended)** The apparatus of claim 1 further <u>comprising</u> including—a steam flow control valve to control the—a\_rate of steam supply to the steam inlet <u>from a steam source</u>.
- 4. **(Currently Amended)** The apparatus of claim 3 further <u>comprising</u> including a temperature transmitter disposed to measure the <u>a</u> temperature of material flowing through the passageway of the static mixer <u>thereby</u> forming a closed loop control system of the steam flow control valve responsive to the measured temperature.
- 5. **(Currently Amended)** The apparatus of claim 1 further <u>comprising</u> including a steam flow pressure control valve to control the <u>a</u> pressure of steam <u>supply supplied</u> to the steam inlet from the <u>a</u> steam source.
- 6. **(Currently Amended)** The apparatus of claim 5 further <u>comprising</u> including a pressure transmitter disposed to measure the pressure of steam <u>supply supplied</u> from the <u>steam flow</u> pressure control valve <u>thereby</u> forming a closed control system of the steam flow pressure control valve to maintain the pressure of the steam supplied to the steam inlet.
- 7. **(Currently Amended)** The apparatus of claim 1 further <u>comprising</u> including:



8. (Currently Amended) The apparatus of claim 7 further comprising
including a temperature transmitter disposed to measure the <u>a</u> temperature of
a steam supply to the steam inlet thereby forming a closed loop control
system of the condensate flow control valve to control the supply of the
condensate to the steam supply to the steam inlet responsive to the
measured temperature.
9. (Currently Amended) Apparatus to heat for heating a bitumen
froth by steam comprising;
i. a source of steam;
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ii. an inline a heater body comprising a bitumen froth inlet for
receiving bitumen froth, a steam inlet in communication with the source
of for receiving steam, and a mixture outlet all in common
communication with each other;
iiia steam pressure flow control valve to control the a pressure of
steam supply supplied to the steam inlet from the a steam source;
iv. a condensate source;
v. means a condensate mixer operably configured to mix the a
condensate with the steam from the steam source;
vi.—a condensate flow control valve to control the a supply of the
condensate to the condensate mixermixing means;
vii.—a steam flow control valve to control the a rate of steam supply
to the steam inlet from the steam source;
viii.—a baffle disposed across the mixture outlet; and

<u>ix.</u> an elongate <u>a</u> static mixer body <u>having first and second spaced</u> <u>ends and forming a passage extending between the first and second endstherethrough, one wherein the first end of the passage is in communication with the mixture outlet, the <u>static mixer</u> body supporting a plurality of baffles disposed to effect a mixing action of material flowing through the static mixer;</u>

wherein the apparatus is operably configured to direct substantially all of the bitumen froth and steam out the second end of the static mixer body.

- 10. **(Original)** The apparatus of claim 9 wherein the baffles are disposed within the static mixer body to impart a lateral, radial, tangential or circumferential directional component to a material flow through said passage that changes repeatedly along the length of the static mixer passage.
- 11. (Currently Amended) The apparatus of claim 9 further <u>comprising</u> including a temperature transmitter disposed to measure the <u>a</u> temperature of material flowing through the <u>passage of the static mixer proximal to the second</u> end of the passage remote from the end in communication with the mixture outlet forming a closed loop control system with the steam flow control valve to control the supply of steam to the material to obtain a target output temperature of the material flow leaving the static mixer.
- 12. (Currently Amended) The apparatus of claim 9 further comprising including a pressure transmitter disposed to measure the a pressure of steam supply supplied to the steam inlet from the steam source forming a closed loop control system of the steam pressure flow control valve to control the supply of steam to the steam inlet responsive in response to the measured pressure.
- 13. (Currently Amended) The apparatus of claim 9 further including comprising a temperature transmitter disposed to measure the a temperature of steam supply supplied to the steam inlet forming a closed loop control

system of the condensate flow control valve to control the supply of condensate to the mixing means <u>in response responsive</u> to the measured temperature.

## 14 to 24. (Cancelled)

- 25. **(New)** The apparatus of claim 1 further comprising a steam source operably configured to deliver steam to the steam inlet at about 90 psi.
- 26. **(New)** The apparatus of claim 3 wherein the steam source is operably configured to deliver steam to the steam flow control valve at about 90 psi.
- 27. **(New)** The apparatus of claim 5 wherein the steam source is operably configured to deliver steam to the steam flow pressure control valve at about 90 psi.
- 28. **(New)** The apparatus of claim 9 wherein the steam source is operably configured to deliver steam at about 90 psi.